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| 10/052,038 | 01/17/2002 | Dong Tian | A148 1599.1 | 1256 |

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01/22/2004

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| EXAMINER |
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REDDICK, MARIE L

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| ART UNIT | PAPER NUMBER |
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1713

DATE MAILED: 01/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,038

Applicant(s)

TIAN, DONG

Examiner

Judy M. Reddick

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do

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/15/02;04/05/02;10/14/03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 13-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the Group I invention in Paper No. 10/14/03 is acknowledged. The traversal is on the ground(s) that the restriction requirement is improper. This is not found persuasive because as to the relationship between Group I and [II & III], it is urged and maintained that Inventions I and [II & III] are related as mutually exclusive species in an intermediate-final product relationship and in the instant case, the intermediate product(Invention I) is deemed to be useful as a printing ink composition intermediate. It is presumed that a reaction takes place upon formation of the surface coating(final product) engendering a final product substantially different from the intermediate product, i.e., the intermediate product loses its identity upon formation of the final product. As to the relationship between Group IV and [II and III], it is urged and maintained that the process(Invention IV) can be used to make materially different products(Inventions II & III) such as a printing ink composition intermediate.

The requirement is still deemed proper and is therefore made FINAL. Accordingly, claims 13-23 have been withdrawn from consideration by the Examiner as per having been drawn to a non-elected Invention.

Specification

2. The disclosure is objected to because of the following informalities: On page 4 @ lines 25 & 26, it is believed that "copolymers that include two homopolymers such as vinyl chloride and vinyl acetate" should read "copolymers that include two monomers such as vinyl chloride and vinyl acetate".

Appropriate correction is required.

Claim Objections

3. Claim 3 is objected to because of the following informalities: It is suggested that "resin" be inserted after "melamine" so as to maintain claim language consistency. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 9-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) The recited "vinyl dispersion" per claim 9 constitutes indefinite subject matter as per it not being readily ascertainable as to whether "vinyl resin dispersion" or "vinyl monomer dispersion" is intended.

B) The recited "the aminoplast" per claim 12 constitutes indefinite subject matter as per the non-express establishment of proper antecedent basis.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ruske(U.S. 3,909,471).

As to claims 1-3, Ruske discloses (1) a waterborne coating composition(column 1, lines 34-35) comprising an aqueous dispersion of a) polyurethane resin particles(column 1,

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lines 32, 34 & 35 & column 6, line 6), b) epoxy resin particles(column 1, lines 31, 34 and 35 & column 6, lines 5 & 6) and c) polyvinyl chloride resin particles(column 1, lines 20-23, 34 & 35); (2) the composition further comprising an aminoplast resin(column 1, lines 29-31 and column 6, line 4); (3) the composition wherein the aminoplast resin is a melamine(column 1, lines 30-31 and column 6, lines 4-5). Ruske therefore anticipates the instantly claimed invention with the understanding that the coating composition of Ruske overlaps in scope with the claimed coating composition and with the understanding that the plastic genus is sufficiently small enough to engender a rejection under 35 USC 102 as provided for under the guise of *In re Schaumann*(572, F.2d 312, 197 USPQ 5 (CCPA 1978).

Even if it turns out that the claimed invention is not anticipated, it would have been obvious to the skilled artisan to extrapolate the coating composition, as claimed, from Ruske as per such having been within the purview of Ruske's general disclosure and with a reasonable expectation of success.

Claim Rejections - 35 USC § 102

9. Claims 1-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kotera et al(U.S. 4,340,519).

As to claims 1-6, Kotera et al teach (1) a waterborne coating composition(the Abstract & col. 8, lines 66 and 68), comprising an aqueous dispersion of a) polyurethane resin particles(col. 9, lines 4, 5 & 42), b) epoxy resin particles(col. 6, line 36 & col. 9, line 4), c) polyvinyl chloride resin particles(col. 9, lines 41-42); (2) the composition further comprising an aminoplast resin(col. 6, line 36, 39 and 40 and col. 8, line 67); (3) the composition wherein the aminoplast is a melamine(col. 6, lines 38-39); (4) the composition further comprising one or more acidic curing agents(col. 9, lines 1-3 & 38); (5) the composition wherein the composition further comprises a first and second curing agent wherein the first curing agent promotes curing at a first temperature and wherein the second curing agent promotes curing at a second temperature(col. 9, lines 1-3 and

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38); (6) the composition wherein the first temperature and the second temperature differ by at least 25 degrees C(col. 9, lines 1-3 and 38). Kotera et al therefore anticipate the instantly claimed invention with the understanding that the aqueous coating composition of Kotera et al overlaps in scope with the claimed aqueous coating composition and with the understanding that it would be expected that the limitations per claims 5 and 6 would be met by Kotera et al since the curing agents of Kotera et al are the same as the claimed curing agents and in the absence of the USPTO to have at its disposal the tools deemed necessary to make physical determinations of this sort. Even if it turns out that the instantly claimed invention is not anticipated by Kotera et al, it would have been obvious to the skilled artisan to extrapolate, from the disclosure of Kotera et al, the precisely defined waterborne coating composition, as claimed, as per such having been within the general purview of the disclosure of Kotera et al and with a reasonable expectation of success.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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12. Claims 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotera et al(U.S. 4,340,519).

The disclosure of Kotera et al for what it teaches as applied to claims 1-6 as set forth supra. Further, the disclosure of Kotera et al differs basically from the claimed invention as per a) the non-express disclosure of an embodiment directed to the functional group-containing polyurethane resin, epoxy resin and/or polyvinyl chloride resin per claims 7 & 8 and the non-express disclosure of embodiments directed to the precisely defined waterborne coating composition, as claimed, in terms of contents per claims 9-12. However, the polyurethane, epoxy and polyvinyl chloride resins of Kotera et al are generic to the claimed functional group-containing polyurethane resin, epoxy resin and/or polyvinyl chloride resin, in terms of content and character, which necessarily implies that any polyurethane resin, epoxy resin and/or polyvinyl chloride resin, including the claimed resin(s), would have been operable within the scope of patentees invention and with a reasonable expectation of success. Moreover, the use of any commercially available polyurethane resin, epoxy resin and/or polyvinyl chloride resin in the system of Kotera et al would have been obvious to the skilled artisan and with a reasonable expectation of success. Criticality for such, commensurate in scope with the claims, not having been demonstrated on this record.

Claim Rejections - 35 USC § 102

13. Claims 1, 7 and 8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bontinck et al(U.S. 5,541,251).

As to claims 1, 7 & 8, Bontinck et al teach (1) a waterborne coating composition(the Abstract and col. 10, line 20), comprising an aqueous dispersion of a) polyurethane resin particles(the Abstract, col. 2, lines 57-60, col. 3, lines 3-7, the paragraph bridging cols. 3 and 4, col. 7, line 34 & col. 9, lines 61-62), b) epoxy resin particles(col. 10, lines 31-34) and c) polyvinyl chloride resin particles(col. 10, lines 31-34); (7) the composition wherein at least one of the polyurethane resin, epoxy resin and polyvinyl chloride resin comprises

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a functional group reactive with an epoxy group in the presence of an acid catalyst under conditions of elevated temperature(col. 2, lines 57-62, col. 3, lines 5-7); (8) the composition wherein the functional group comprises an hydroxy group(col. 6, lines 10-20). Bontinck et al therefore anticipate the instantly claimed invention with the understanding that the aqueous coating composition of Bontinck et al overlaps in scope with the claimed waterborne coating composition. Even if it turns out that the claimed invention is not anticipated, it would have been obvious to the skilled artisan to extrapolate, from the disclosure of Bontinck et al, the precisely defined waterborne coating composition as per such having been within the purview of the general disclosure of Bontinck et al and with a reasonable expectation of success.

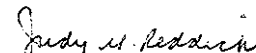
Conclusion

14. The prior art to Klein et al(U. S. 5,623,016), Kukkala et al(U.S. 5,859,111) and Rayner et al(U.S. 6,180,244 B1) listed on the attached FORM PTO 892 is cited as of interest in teaching aqueous compositions comprising at least a urethane polymer and are considered merely cumulative to the prior art supra. The remaining prior art is cited as of being illustrative of the general state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (571)272-1110. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-8183.


Judy M. Reddick
Primary Examiner
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JMR *JMR*
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